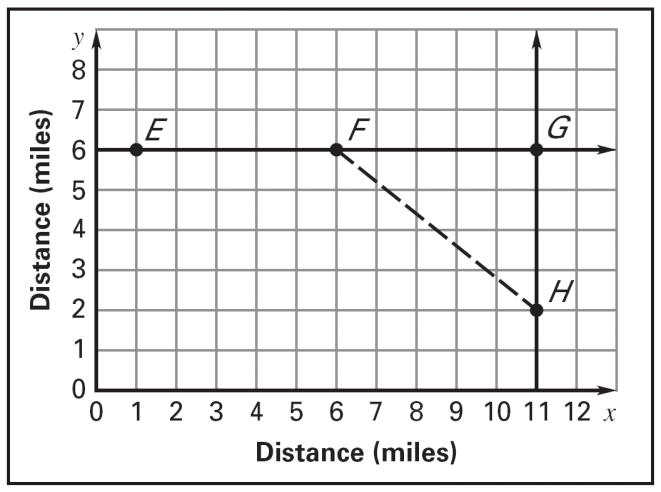
**Extended HW Week 20 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DISTANCE Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per\_\_\_**

*FH*

*GH*

*EG*

1. The diagram shows existing roads (and )and a proposed road ( ) being considered.

**a.** If you drive from point *E* to point *H* on existing roads, how far do you travel?

**b.** If you were to use the proposed road as you drive from *E* to *H,* about how far do you travel? Round to the nearest tenth of a mile.

1. About how much shorter is the trip if you were to use the proposed road?
   1. A person jogs along a straight path. Let *A* represent the point where the person starts from, let *B* represent the person's current position, and let *C* represent the point where the path ends.
      1. Draw and label a line segment that represents the situation.
      2. *If AC* is 2500 feet and *AB* is 1375 feet, how much farther must the person jog to reach the end of the path?
         1. Point *W is* the midpoint of and the midpoint of . The endpoints of are *S*(–5, 0) and *T(*3*,* 2). The coordinates of point *X* are (–4, 3). Find the coordinates of point *Y.*

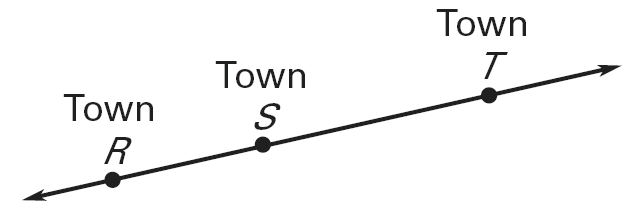
*ST*

*XY*

*ST*

1. You are walking on a path that lies along a straight road. The total length of the path is 7.2 kilometers. You have been walking for 65 minutes at an average speed of 4.8 kilometers per hour. How much farther (in kilometers) do you need to walk to reach the end of the path?

1. Dave is a salesperson who needs to visit towns *R, S,* and *T.* On the map below, *RS =* 16.4 mi and *ST =* 1.5*RS.* Assume Dave travels along the road shown.

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1. Find the distance Dave travels it he starts at Town *R,* visits Towns *S* and *T,* and then returns to Town *R.*
2. About how much time does Dave spend driving it his average driving speed is 56 miles per hour?
3. Dave needs to spend 1.75 hours in each town Can he visit all three towns and return to Town *R* in an 8 hourwork day? **Explain in a complete sentence.**